



Claims

What I claim as my invention Is:

Claim 1 (amended)

A diagnostic cylindrical or any other longitudinal probe introduced through the body surfaces to the target tissue through a hollow cylindrical or any other longitudinal metal sheath to identify the tissue type and predict the nature of its pathology for an anomalous tissue before actual cutting of the biopsy by detecting detect the mechanical resistance of the tissues tissue to piercing, by having an electrical circuit composed of comprising:

a cylindrical probe body

a compressible sharp pointed piercing tip fixed to the having a base mounted at a distal end of the cylindrical probe body through a coiled wire sliding over the surface of an inbuilt changeable electrical resistance as well as and over a metal blade or any other electrically conductive surface,

a first wire connecting the metal blade to an electrical source, the first wire passing through the body of the probe;

- a. running inside the body of the probe,
- b. integrated into but electrically isolated from the wall of the body of the probe or
- c. running along the outer surface of the probe with a groove or tunnel at the corresponding part facing the wire in the metal sheath or
- d. any other mean to connect the electrical signal

a second wire connecting the electrical resistance to the electrical source, the second wire passing through the body of the probe;

- a. running inside the body of the probe,
- b. integrated into but electrically isolated from the wall of the body of the probe or
- c. running along the outer surface of the probe with a groove or tunnel at the corresponding part facing the wire in the metal sheath or
- d. any other mean to connect the electrical signal along the body of the probe,

connecting one terminal of the resistance to an electrical source, wherein the electrical source is located at the handle of the probe or separately outside the probe; and

a monitor comprising an Ammeter or Voltmeter to detect the electrical current intensity or voltage with the ability to add possibility of adding a registering unit ~~on using~~ sensitive or ordinary paper ~~to monitor and record~~ the electrical resistance, and connecting the electrical source to the metal blade so that, wherein the nature of the target tissue is detected by changing the mechanical resistance faced by the tip of the probe during its passage in the target tissues into a change in the electrical resistance ~~or~~ any other detectable signal.

~~followed by replacement of the probe with a grooved biopsy needle or any other tissue cutting instrument of identical size and length through the same metal sheath to cut the target tissue for biopsy without the need to introduce through a different orifice.~~



Claim 2 (amended)

The A diagnostic cylindrical probe introduced through the body to detect the electrical resistance of the target tissue comprising

according to claim 1 has said a pointed piercing tip containing including two electrically isolated electrodes connected to an electrical circuit to detect the electrical resistance of the tissues-tissue to passage of an electrical current; composed of

a first wire running inside the body of the probe with one of its terminals at the tip of the probe and the other terminal connected to an electrical source;

the electrical source is located ~~at the handle of the probe or separately outside the probe;~~

an Ammeter or Voltmeter to detect the electrical current intensity or voltage with possibility of adding a registering unit on sensitive paper and

a second wire running inside the body of the probe with one end connected to the electrical source & ~~and~~ the other end is located at the tip of the probe near the end of the said first wire,
~~so that~~

wherein the nature of the target tissue is detected by monitoring the electrical resistance exerted by the tissue surrounding the tip to the passage of the current between the ends of the two wires followed by replacement of the probe with a grooved biopsy needle or any other cutting device of identical size and length through the same metal sheath to cut the target tissue for biopsy without the need to introduce through a different orifice.



Claim 3 (amended)

The A diagnostic cylindrical probe according to claim 1 has introduced through the body to detect the electrical activity of target tissue, comprising:

an electrical circuit to detect the electrical activity impedance; composed of;

a pointed piercing sensor at its tip electrically isolated from the probe by a transverse insulator to detect the electrical activity impedance of the target tissue;

a first wire running inside the body of the probe with one of its terminals at the tip of the probe and the other terminal connected to an electrical activity impedance monitor; and

a second wire connecting the electrical activity impedance monitor to the body of the probe, which will work operates as a neutral isoelectric point;

so that

wherein the nature of the target tissue is detected by monitoring the electrical activity impedance exerted by of the tissue surrounding the tip followed by replacement of the probe with a grooved biopsy needle or any other cutting device of identical size and length through the same metal sheath to cut the tissue for biopsy without the need to introduce through a different orifice

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